

# **USGS National Assessment of Oil and Gas Online** (NOGA Online)

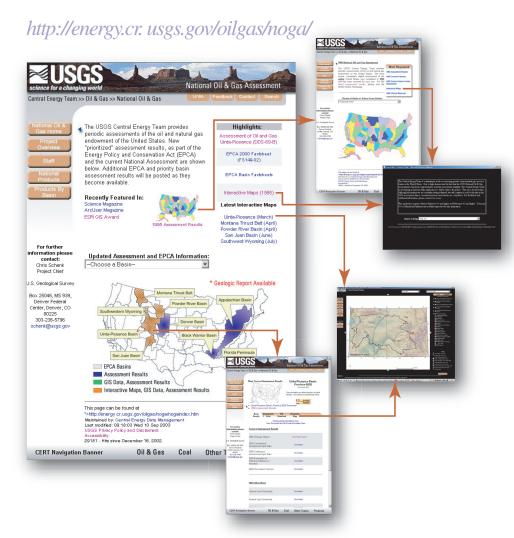
he Central Energy Resources Team (CERT) of the U.S. Geological Survey is providing results of the USGS National Assessment of Oil and Gas online (NOGA Online). In addition to providing resource estimates and geologic reports, NOGA Online includes an internet map application that allows interactive viewing and analysis of assessment data and results. CERT is in the process of reassessing domestic oil and natural gas resources in a series of priority basins in the United States using a Total Petroleum System (TPS) approach where the assessment unit is the basic appraisal unit (rather than the oil and gas play used in the 1995 study). Assessments of undiscovered oil and gas resources in five such priority provinces were recently completed to meet the requirements of the Energy Policy and Conservation Act of 2000 (EPCA 2000). New assessment results are made available at this site on an ongoing basis.

## To access NOGA Online visit http://energy.cr.usgs.gov/oilgas/noga/.

The assessment results are provided by province from either a map interface or a pull-down menu. For each completed province, Total Petroleum Systems and their assessment units (AU's) are defined and results reported. NOGA Online currently provides nearly 6,000 datasets for viewing, download, and interactive analysis directly from the website.

Users have an option of exploring the assessment data via an interactive map application using ArcIMS (ESRI, 2003). The NOGA Online map application is a single interface that provides interactive mapping, HTML Viewer, limited GIS functionality, GIS data/metadata download, tools to view assessment results, and tools to access all the data provided at the NOGA province pages.

Migration to the internet map application is provided from the NOGA home page and from the province pages. Links to the 1995

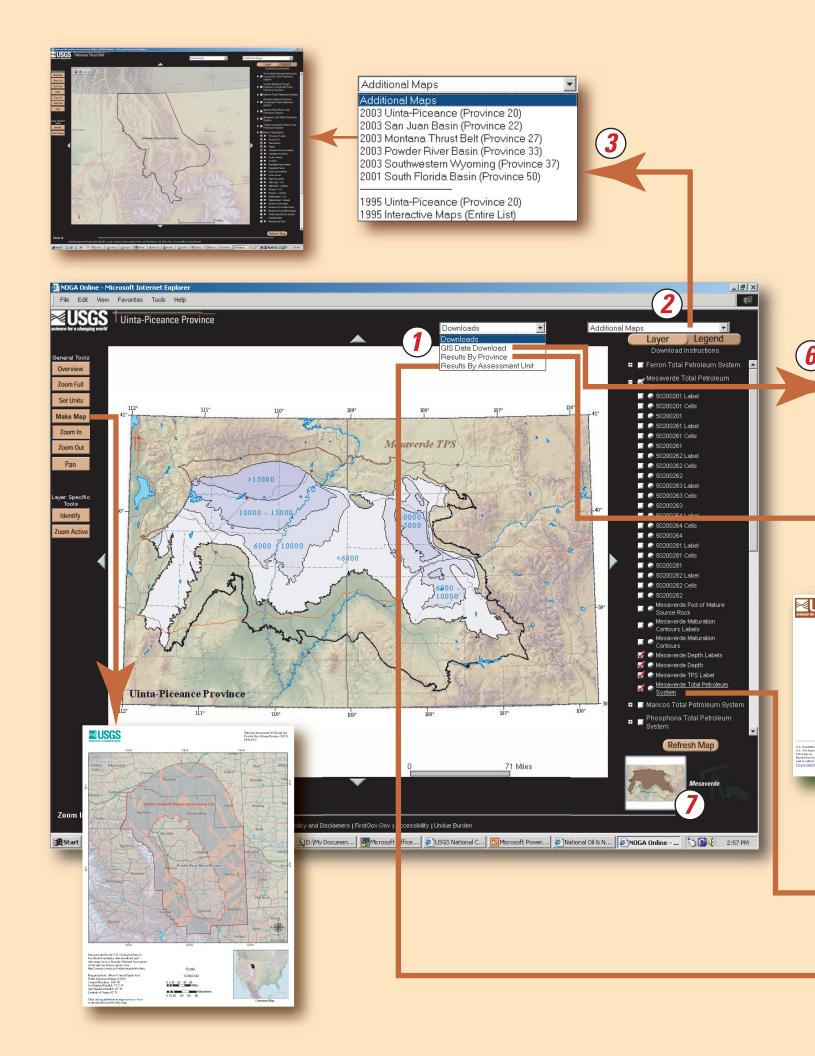


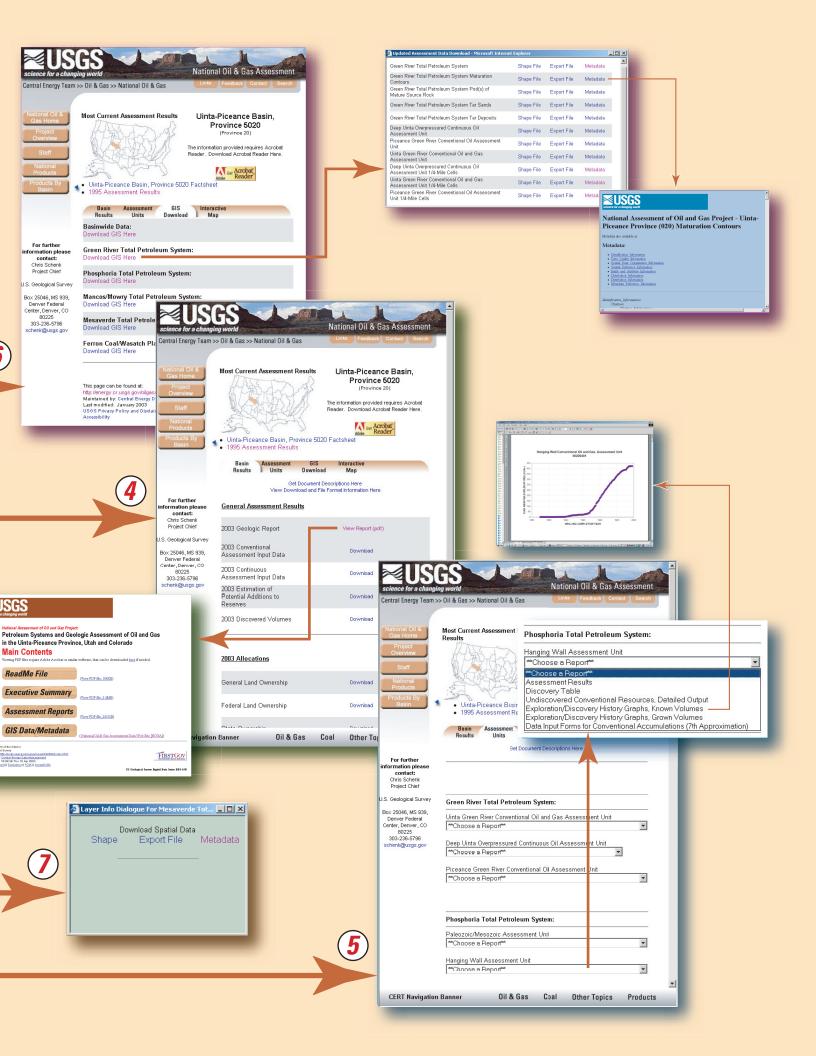
internet map application open a page where the user can choose a province map from a pull-down menu.

The interactive map application utilizes ArcIMS (ESRI, 2003) tools that allow the user to choose which layers are visible and (or) active, zoom in or out or to the extent of the active layer and identify its geographic features, and view a map explanation. Within the map application users can access related information from drop-down menus or open another map. By clicking on the "Downloads" dropdown menu (1), the user can link to the geologic report and assessment results

tables. The "Additional Maps" drop-down menu (2) accesses all provinces currently available. The user can select and link to another province, link to the 1995 map service for this province, or link to the NOGA Online "choose a map" window where all 1995 map services may be opened from the map list (3).

The Basin Results page (4) presents the province geologic reports and assessment results data in tab-delimited files. Available for download are input data, estimates of potential additions to reserves, discovered volumes, and allocations according to land ownership and ecosystems.





The Assessment Units (5) page provides assessment unit results by TPS, which can be viewed or downloaded in PDF tables, forms, or graphs. Some or all of the following files are available for each assessment unit: Assessment Results; Discovery Table; Undiscovered Conventional Resources, Detailed Output (Klett and others, 2000); Continuous Resources, Detailed Output (Klett and others, 2000); Exploration/Discovery History Graphs, Known Volumes (Klett and others, 1997); Exploration/Discovery History Graphs, Grown Volumes (Klett and others, 2000); Data Input Forms for Conventional Accumulations (Seventh Approximation Data, Schmoker and Klett, 1999); Data Input Forms for Continuous Accumulations (FORSPAN, Schmoker, 1999).

GIS download provides assessment results in shapefile (ESRI, 1998) and Arc/Info EXPORT format complete with FGDC-compliant metadata (Federal Geographic Data Committee, 2000) (6).

Also provided are links to information associated with the layers, such as GIS data, metadata, thumbnail views, and links to the sources of the base cartographic layers (7).

Interactive map applications separate GIS use from GIS management, thus simplifying the utilization of GIS technology. Internet map services cater to a wide range of user levels, from novice to expert. Using GIS technology to build a research tool leads to that tool becoming a published product.

Map service products developed by CERT can be integrated into a wide variety of external applications, for example, the availability of NOGA Online map services from (1) the Geography Network (http://www.geographynetwork.com/aboutus/index.html), a global network of geographic information users and providers maintained by ESRI, and (2) the Geospatial One-Stop (http://www.geodata.gov/), one of 24 OMB electronic-government initiatives to enhance government efficiency.

A major goal of CERT is interorganizational sharing and coordination of spatial data. Map services provide the framework for such coordination and sharing: A wide variety of client applications can be used, including web browsers and desktop GIS software; map services can be integrated into a range of custom applications; GIS data management is transparent to the user; data providers can control presentation of their local data; data are accessed and utilized in a distributive fashion.

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## For further information:

NOGA Online is available at the USGS Central Energy Team website: <a href="http://energy.cr.usgs.gov/oilgas/noga/">http://energy.cr.usgs.gov/oilgas/noga/</a>

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